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ABSTRACT

A course was prepared by Planned Parenthood on the subject of human sexuality. The school district required an evaluation to determine effects, assess whether the instructional agency should be invited back, and to determine whether experiences should be continued. An action research approach was deemed appropriate. The objectives of the research project were to assess teachers': perceptions of themselves; valuing boys and girls; perceptions of parents' attitudes toward sex education; attitudes toward human sexuality; feelings about the course; and learning. A semantic differential instrument was developed to assess attitudes. Involvement and satisfaction with the course were measured with an adjective check list. The results were shared with Planned Parenthood and the school district. Recommendations included more participant involvement; greater stress on positive teacher attitude formation; greater emphasis on cognitive learning; greater balance of role involvement of boys and girls related to human sexuality and sex education; more understanding of parental attitudes and roles; need for more systematic and formal evaluation; and consideration of design of in-service education programs. Action research approaches need to be developed to meet the constraints that are imposed by a school district or an environment. (DWH)

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# Assessing a Controversial In-Service Program: An Action Research Approach

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## Introduction and Scope of the Study[1]

Controversial issues are not new to schools and to teacher education, yet few have generated as much concern (both for and against) as is the place of human sexuality in the school curriculum (Anastasiow, et al., 1974; Calderwood, 1970; Calderwood, et al., 1975; Gordon, 1974; The Journal of School Health, 1981; Kapel and Ringer, 1981; Mooney, 1974; Robb, 1980; Roberts, 1980). A large urban school district in an upper Southeast State is required by state law to include sex education in its curriculum. As a result, several pro-life community groups as well as religious organizations have become concerned about what is being taught with regards to sex education and human sexuality. (They are also concerned with the state mandated sex education requirement for all schools in the State; many are working for its repeal.) These groups are not only concerned with content, but they are concerned with teaching, teaching procedures, and who is providing the in-service. When a three clock hour in-service course dealing with human sexuality was included in the schedule of courses available to teachers in the district, these groups and organizations reacted. (It should be noted that all teachers in the district are required to attend 24 hours of in-service courses per year. They select such courses from a listing of several hundred offerings, consequently all teachers attending a particular course are there, to some extent, on the basis of self-selection. That is, they are required (or forced) to attend the courses, yet they have some options of selectivity.) What makes this particular in-service course unique is the fact that an outside social agency (the local Planned Parenthood organization) designed the course, including materials used. They were also responsible for the teaching of the course.

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[1] Although she is no longer with Planned Parenthood, the author would like to acknowledge the work and cooperation of Susan Hines.

The content of the course focused on human sexuality, as opposed to sex education. Because of restrictions imposed by the school district, no teaching methodology was covered in the course. The course material and thrust was to be general and informational for teachers only. Materials, topics, concepts, etc., were not to have direct application in the classroom--that is, teachers could not use them in the classroom; nothing presented was designed for children (K-12). Whether the restrictions imposed by the school district on the agency providing the in-service course was a function of the other outside agencies' reactions is moot and not a concern of this study, other than possibly: creating significant limitations on the course itself; influencing measureable outcomes; helping in the interpretation of the results.

There were six in-service sessions on human sexuality offered to teachers. These sessions were held after school. Teachers could only enroll in one session, and they were segregated according to level taught (elementary, middle school, high school).

Other significant constraints facing this evaluation were the number, sex, and marital distributions of teachers taking the in-service course--with 28 high school, 24 middle school, and 19 elementary school teachers involved, with only 10 males (five from high school, three from middle school and two from elementary schools). Forty-four (44) were married, 17 were single, and 5 didn't indicate marital status. Clearly, the population involved, the constraints imposed, and the nature of the in-service course restricts the generalizability of the results.

Because of the conflicts generated by "pro-life" and "pro-choice" groups, each presentation was monitored by a representative of the central administration of the school system. Several sessions were attended by "pro-life" representatives. The sessions and assessment were restricted as a result of

the concerns of the central administration. There was, however, a need to determine just how these sessions were "viewed" by the teachers; it was felt that oral responses by teachers and observations by the presentors (from Planned Parenthood) were not sufficient to determine effects--if any.

The author became involved in the evaluation of this unique course because local in-service courses often are offered with little or no systematic evaluation. And when an out-side non-educational agency provides the instruction, particularly in a highly controversial content area, it is important for the host agency (in this case the school district) to evaluate the course(s) in order to (1) determine effects, (2) to assess whether the instructional agency should be "invited back" to do the instruction, and (3) to determine whether the experiences are worth continuing. When the host agency restricts the length of the course (to one three clock hour session), with no preparation required of teachers, opens it to all teachers regardless of content experiences and/or grade level taught, and limits the amount and type of evaluation (all assessment had to be completed within the three clock hours and teachers could be tested only once), the traditional experimental, quasi-experimental or evaluation designs become inappropriate. An action research approach was used in the evaluation, one built on the limitations described above. As stated by Borg (1981) and Gay (1981), the focus of action research is on local problems and local decision making--not on generalizing beyond the locale. Thus, the impact of the three hour in-service course was studied in terms of teacher perceptions (attitudes, involvement, satisfaction) and cognitive learning in an action research mode.

More specifically, the objectives of this action research project were to assess teacher's: (1) perceptions of themselves; (2) valuing boys and girls; (3) perceptions of parents' attitudes toward sex education in the schools; (4) attitudes towards human sexuality; (5) feeling of "involvement in"

and "satisfaction with" the three-hour in-service course; and (6) learning. In addition, because of the constraints imposed by the school administration, the approach used in this action research project was assessed to determine whether it was possible to evaluate the course under such constraints.

Methodology

In order to assess attitudes, a semantic differential instrument was developed (Osgood et al., 1957, Kapel, 1973, Kovacs and Kapel, 1976). Five stimuli were used: Human Sexuality; Girls; Your Perceptions of Parental Attitudes toward Sex Education in Schools; Boys; Me-Myself. Each stimulus was rated on each of twelve scales measuring these dimensions: Evaluation, Potency, and Activity (Osgood et al., 1957). The "evaluation" domain refers to the "worth" or "meaning" that teachers have about a particular stimulus. "Potency" domain refers to the individual's perception of how the stimulus or experience can (or is) cause or effect change. Finally, the "activity" domain refers to the excitement generated by a stimulus. Four scales were used to measure a particular dimension (see Table 1).

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Insert Table 1 about here
- - - - - - - - - - - - - - -

Involvement and satisfaction were measured through a check list of adjectives that were scaled on two bipolar dimensions: involvement--non-involvement; satisfaction--dissatisfaction (Allen and Potkay, 1973, Kapel et al., 1979, Willis and Allen, 1978). Participants were asked to select the one adjective that described their feelings about the session attended (Table 2 and 3).

- - - - - - - - - - - - - - - - -
Insert Table 2 & 3 about here
- - - - - - - - - - - - - - - - -

An eight item cognitive test (multiple choice) was administered. The items of the test dealt with facts and information presented in the session related to sex education (rather than the broad field of human sexuality). Because of time constraints, the cognitive test was designed purposely to be short and easy to administer.

Due to previously stated restrictions, it was impossible to pre and post-test each applicant. Therefore, a modified matrix sampling approach was used. At each session, half the group was randomly selected and was tested at the beginning while the remaining half was tested at the end.[1] The same attitude and cognitive instruments were used for the testing. Although not a true pre-post design, it was felt that random selection would allow comparison of the two test results (using a t-test of non-correleated means). If significant differences did occur, it could be inferred that the course had either positive (gain) or negative (loss) effects. All participants did respond at the end of the session to the check list of adjectives (see Tables 2 and 3).

All sessions were identical--with the same material presented, the same films, film-strips, small group exercises, and a programmed script, etc. The content included: What is human sexuality? Who should teach it? Specifics on sex education were integrated throughout each session. No methodology was presented--the sessions were general in nature; again a restriction placed on Planned Parenthood by the School District.

Findings and Importance of the Study

The lowest rating possible on the semantic differential administered on any dimension (Evaluation, Potency, Activity) for any stimulus was 4.00, a neutral point was 16.00, and the highest rating (most favorable) was 28.00

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[1] For purposes of this study, the test administered at the beginning of each session is titled pre-test, and the test administered at the close of each session is titled post-test.

On the pre-test for high school teachers the lowest rating was 13.93 (potency of Girls), with the highest being 25.71 (evaluation of Human Sexuality). The lowest post-test rating was 15.43 (evaluation of Parental Attitudes), and 24.21 (evaluation of Me-Myself) was the highest for high school teachers. Out of 15 possible pre-test means, one was below the neutral point, one was at the neutral point, four were between 17-20 and nine were above 20.00. Of the post-test distributions, two were below the neutral point, three were at the neutral point, four were between 17-20.00, and five were above 20.00. There was no question that high school teachers valued the stimuli assessed less after the courses than before; however, the changes were not significant--except for parental attitudes ($t = 2.486$, $df = 26$, $p < .025$. Overall, the Parental Attitudes stimuli generated the lowest ratings (around the neutral point). It is also interesting to note that they tended to value girls over boys in both the pre and post-tests. All teachers valued themselves highly (Me-Myself) on both pre and post-tests.

Middle school and elementary teachers' responses were quite similar to high school teachers, except they tended to be a little more positive (although not significantly). They viewed girls in the same way as their high school counterparts (see Table 4).

Since there were few divorced teachers, they were not included in the analysis of the perceptions of married or single teachers. The distributions did not allow a factoral assessment either (i.e., level taught x marital status). The results indicate that the married teachers' perceptions were generally more positive (although not significantly so) toward the stimuli on the post-test than were single teachers. However, they were the same on the pre-test (see Table 5).

- - - - - - - - - - - - - - - -
Insert Table 4 & 5 about Here
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On the involvement--non involvement dimension (with a rating of 0- no involvement to 5- neither involved nor non-involved to 10-highly involved), high school teachers had a mean of 6.42, middle school teachers' mean was 6.08, and elementary teachers had a 6.00 mean. Their satisfaction-dissatisfaction means were 5.73 (high school), 5.92 (middle school), and 5.21 (elementary). Teachers, regardless of level, felt neutral in terms of their involvement and satisfaction with the session attended (see Table 5). There were no significant differences among the three groups.

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Insert Table 6 about Here
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Teachers, regardless of grade level taught, were at the same pre-test level on the cognitive test (high school, $\bar{x} = 3.57$; middle school, $\bar{x} = 3.50$; elementary school, $\bar{x} = 3.14$). Post-test mean scores were: 4.36 for high school; 3.56 for middle school; and 4.56 for elementary teachers. There was a significant difference between pre- and post-test for elementary teachers ($t = 2.633$, $df = 17$, $p < .05$, with significant gain). The difference between pre- and post-test for high school teachers approached significance ($p < .08$). There was no significant difference for middle school teachers. On a criterion base, the teachers only knew 40-60% of the cognitive knowledge tested (see Table 7).

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Insert Table 7 about Here
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The results indicate a generally positive attitude toward the subject area before the sessions. The instruction and approaches used did not alter the general attitudes in either a significantly negative or positive direction. This was true regardless of grade taught or marital status. The teachers did not view themselves as being very involved in the activities of the session (even though they were supposed to be involved), nor were they

particularly satisfied, although not dissatisfied. Cognitvely, elementary teachers gained more from their sessions than either high school or middle school teachers.

The results were shared with both Planned Parenthood and the School District in terms of: more participant involvement in future sessions; greater stress on positive teacher attitude formation; more emphasis on cognitive learning; greater balance of role involvement of boys and girls related to human sexuality and sex education; more understanding of parental attitudes and the role of parents; need for a more systematic and formal evaluation; and the design of in-service education programs as implemented by the school district. The results might be attributed to one or more of the following: self-selection causing positive attitudes; no accountability permitting teachers to be less interested in the cognitive aspects of the session; teacher interest in only methodology causing less interest in the course; requirement of twenty-four (24) clock hours in-service work functioning to depress the attitude of some teachers; the program not being designed as effectively as possible: methodology used being ineffective or nonappropriate; little involvement effecting satisfaction, or little satisfaction restricting involvement; the content and controversial nature of the topic causing the sessions to be "watered down"; central administration attendance to each session serving to restrict active participation; teachers not feeling free to be actively involved because of the topic and/or the presence of "outsiders". Which one(s) caused the results is moot, but they should be considered by both Planned Parenthood and the School District. What is important is that action research approaches must be developed to meet the constraints that might be imposed by a school district (regardless of the reasons or motivation) or an environment. It is clear that the action research mode of

evaluation provides better, more sensitive, and more systematic information than using an informal approach. This approach provided guidance to both the school district and Planned Parenthood for future sessions in this critical and sensitive area.

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Table 1

Dimension and Scales Used in the
Semantic Differential

| Dimension | Scales[1] |
|---|---|
| Evaluation | Good (+) - Bad |
| | Beautiful (+) - Ugly |
| | Worthless - Valuable (+) |
| | Profane - Sacred (+) |
| Potency | Weak - Strong (+) |
| | Soft - Hard (+) |
| | Heavy (+) - Light |
| | Rugged (+) - Delicate |
| Activity | Sharp (+) - Dull |
| | Fast (+) - Slow |
| | Passive - Active (+) |
| | Cold - Hot (+) |

[1] (+) denotes high scoring direction on indicated dimension.

Table 2

ADJECTIVES

| | | | |
|---|---|---|---|
| 1. | amused | 20. | glad |
| 2. | angry | 21. | helpless |
| 3. | annoyed | 22. | indifferent |
| 4. | anticipatory | 23. | indignant |
| 5. | apprehensive | 24. | inquisitive |
| 6. | bored | 25. | interested |
| 7. | calm | 26. | involved |
| 8. | complacent | 27. | joyful |
| 9. | concerned | 28. | liberated |
| 10. | content | 29. | lonely |
| 11. | depressed | 30. | meditative |
| 12. | despairing | 31. | neutral |
| 13. | detached | 32. | satisfied |
| 14. | disappointed | 33. | serene |
| 15. | disturbed | 34. | somber |
| 16. | ecstatic | 35. | still |
| 17. | elated | 36. | terrified |
| 18. | exasperated | 37. | tranquil |
| 19. | excited | 38. | uneasy |

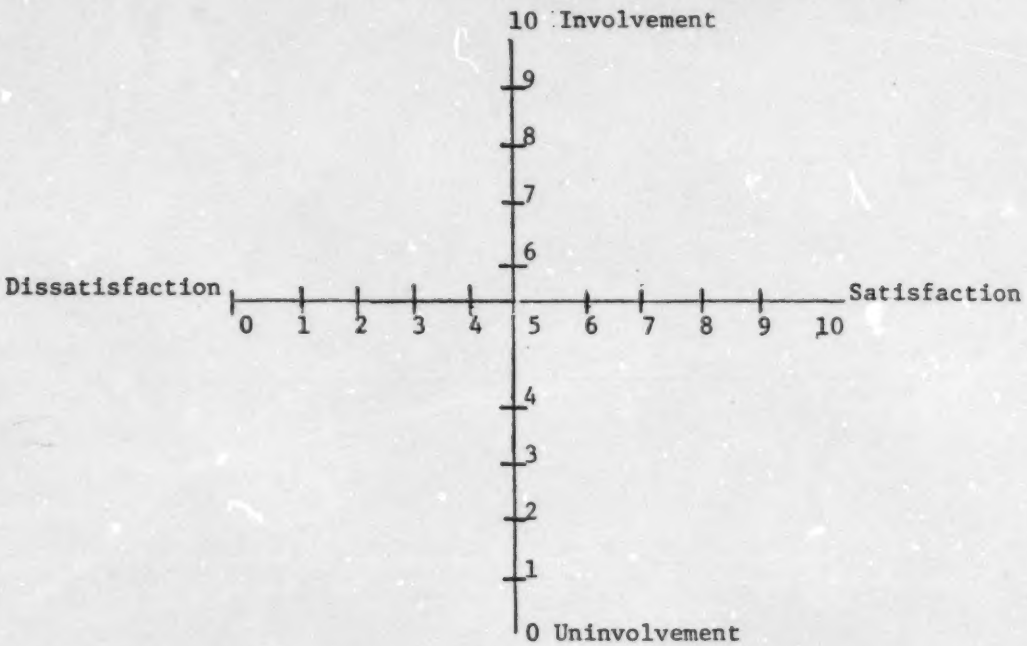
Table 3

SCALE FOR ADJECTIVES

| Adj. No. | Involvement[1] | Satisfaction[1] | Adj. No. | Involvement[1] | Satisfaction[1] |
|---|---|---|---|---|---|
| 1 | 6 | 7 | 20 | 7 | 7 |
| 2 | 9 | 1 | 21 | 3 | 1 |
| 3 | 7 | 3 | 22 | 1 | 3 |
| 4 | 8 | 6 | 23 | 9 | 2 |
| 5 | 7 | 2 | 24 | 7 | 6 |
| 6 | 0 | 3 | 25 | 6 | 6 |
| 7 | 4 | 6 | 26 | 9 | 7 |
| 8 | 2 | 4 | 27 | 9 | 9 |
| 9 | 6 | 4 | 28 | 2 | 9 |
| 10 | 4 | 6 | 29 | 2 | 1 |
| 11 | 1 | 1 | 30 | 2 | 6 |
| 12 | 9 | 0 | 31 | 5 | 5 |
| 13 | 1 | 4 | 32 | 6 | 7 |
| 14 | 6 | 2 | 33 | 2 | 8 |
| 15 | 6 | 2 | 34 | 3 | 2 |
| 16 | 10 | 10 | 35 | 1 | 6 |
| 17 | 10 | 9 | 36 | 10 | 0 |
| 18 | 8 | 2 | 37 | 3 | 7 |
| 19 | 8 | 8 | 38 | 4 | 3 |

[1] For purposes of this evaluation, the elation-depression dimension (Willis and Allen, 1978: 52-58) was treated as a satisfaction-dissatisfaction dimension, while the involvement-uninvolvement dimension was retained. (Reference--Willis, George (Editor) Qualitative Evaluation: Concepts and Cases in Curriculum Criticism. Berkeley: McCutchan Publishing Corporation, 1978.

ADJECTIVES CO-ORD. SYSTEM

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EXAMPLE OF SEMANTIC DIFFERENTIAL

HUMAN SEXUALITY

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Good | ( ) | ( ) | ( ) | ( ) | ( ) | ( ) | ( ) | Bad |
| Weak | ( ) | ( ) | ( ) | ( ) | ( ) | ( ) | ( ) | Strong |
| Cold | ( ) | ( ) | ( ) | ( ) | ( ) | ( ) | ( ) | Hot |

4.00 is lowest possible score
16.00 is neutral
28.00 is highest possible score

Table 4

Attitudes of Teachers toward Selected Stimuli by Level

| Grade Level | | Human Sexuality | | | Girls | | | Parental Attitudes | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | E | P | A | E | P | A | E | P | A |
| High School Pretest | $\bar{x}$ | 25.71 | 16.78 | 20.21 | 24.93 | 13.93 | 20.21 | 17.43 | 17.35 | 17.14 |
| N = 14 | S.D. | 2.13 | 2.89 | 3.70 | 2.81 | 4.01 | 3.82 | 6.71 | 4.86 | 4.63 |
| High School Posttest | $\bar{x}$ | 24.15 | 16.93 | 19.79 | 23.64 | 16.07 | 18.64 | 15.43 | 16.64 | 15.21 |
| N = 14 | S.D. | 1.75 | 2.40 | 3.38 | 3.46 | 1.40 | 2.73 | 5.94 | 1.40 | 2.94 |
| Elementary School Pretest | $\bar{x}$ | 25.79 | 15.36 | 20.57 | 25.36 | 14.36 | 19.93 | 16.71 | 15.50 | 16.24 |
| N = 9 | S.D. | 2.83 | 2.50 | 3.50 | 2.44 | 4.05 | 2.76 | 6.83 | 3.41 | 3.68 |
| Elementary School Posttest | $\bar{x}$ | 26.33 | 17.22 | 21.22 | 25.56 | 16.78 | 20.67 | 16.89 | 17.22 | 17.22 |
| N = 10 | S.D. | 2.06 | 2.05 | 2.44 | 3.84 | 2.17 | 3.12 | 6.23 | 2.63 | 4.92 |
| Middle School Pretest | $\bar{x}$ | 25.16 | 17.50 | 18.33 | 24.16 | 16.50 | 20.16 | 15.66 | 15.66 | 14.00 |
| N = 14 | S.D. | 2.78 | 4.88 | 4.13 | 3.37 | 3.93 | 3.62 | 3.25 | 4.84 | 3.58 |
| Middle School Posttest | $\bar{x}$ | 25.50 | 14.12 | 20.56 | 26.06 | 13.81 | 19.56 | 17.56 | 15.81 | 16.12 |
| N = 10 | S.D. | 1.86 | 2.94 | 2.27 | 3.22 | 3.74 | 4.74 | 5.97 | 3.50 | 5.85 |

Table 4 (continued)

Attitudes of Teachers toward Selected Stimuli by Level

| Grade Level | | Boys | | | Me-Myself | | |
|---|---|---|---|---|---|---|---|
| | | E | P | A | E | P | A |
| High School Pretest | $\bar{x}$ | 20.29 | 21.50 | 20.29 | 23.86 | 18.21 | 21.37 |
| N = 14 | S.D. | 3.63 | 3.46 | 3.63 | 3.01 | 2.55 | 3.08 |
| High School Posttest | $\bar{x}$ | 21.71 | 19.71 | 18.50 | 24.21 | 17.64 | 20.43 |
| N = 14 | S.D. | 3.71 | 3.10 | 3.08 | 3.29 | 2.92 | 2.82 |
| Elementary School Pretest | $\bar{x}$ | 24.71 | 19.36 | 21.71 | 23.64 | 17.59 | 21.57 |
| N = 9 | S.D. | 2.70 | 4.07 | 4.08 | 4.31 | 3.67 | 4.63 |
| Elementary School Posttest | $\bar{x}$ | 23.00 | 17.89 | 20.22 | 25.00 | 16.11 | 21.33 |
| N = 10 | S.D. | 4.64 | 3.62 | 4.09 | 2.87 | 4.62 | 4.77 |
| Middle School Pretest | $\bar{x}$ | 23.33 | 18.33 | 20.83 | 23.00 | 16.33 | 21.00 |
| N = 14 | S.D. | 2.94 | 4.32 | 4.54 | 2.90 | 4.63 | 2.37 |
| Middle School Posttest | $\bar{x}$ | 21.75 | 19.75 | 22.12 | 24.81 | 16.18 | 20.93 |
| N = 10 | S.D. | 5.37 | 5.18 | 4.38 | 3.31 | 3.72 | 3.73 |

Table 5

Attitudes of Married and Single Teachers Toward Selected Stimuli

| Status | | Human Sexuality | | | Girls | | | Parental Attitudes | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | E | P | A | E | P | A | E | P | A |
| Married Pretest | $\bar{x}$ | 24.70 | 16.00 | 18.00 | 24.41 | 14.63 | 18.74 | 19.10 | 17.62 | 17.50 |
| N = 20 | S.D. | 3.27 | 3.00 | 1.64 | 2.51 | 4.36 | 1.86 | 6.29 | 4.06 | 2.13 |
| Married Posttest | $\bar{x}$ | 26.42 | 15.14 | 21.17 | 26.28 | 15.57 | 20.14 | 18.00 | 15.71 | 18.71 |
| N = 24 | S.D. | 1.72 | 2.12 | 2.43 | 1.39 | 2.94 | 3.54 | 8.70 | 4.08 | 6.78 |
| Single Pretest | $\bar{x}$ | 25.75 | 16.25 | 20.00 | 23.54 | 15.55 | 17.00 | 17.51 | 14.75 | 16.75 |
| N = 8 | S.D. | 0.96 | 3.30 | 1.41 | 4.20 | 3.70 | 1.15 | 5.26 | 3.78 | 6.70 |
| Single Posttest | $\bar{x}$ | 26.00 | 15.75 | 19.50 | 25.75 | 15.75 | 19.50 | 18.25 | 16.75 | 17.25 |
| N = 9 | S.D. | 2.16 | 4.19 | 2.65 | 4.50 | 2.06 | 4.12 | 2.63 | 2.50 | 1.50 |

Table 5 (continued)

Attitudes of Married and Single Teachers Toward Selected Stimuli

| Status | | Boys | | | Me-Myself | | |
|---|---|---|---|---|---|---|---|
| | | E | P | A | E | P | A |
| Married Pretest | $\bar{x}$ | 22.26 | 19.70 | 19.70 | 22.81 | 16.27 | 19.60 |
| N = 20 | S.D. | 2.95 | 2.59 | 2.64 | 3.41 | 2.86 | 3.39 |
| Married Posttest | $\bar{x}$ | 25.57 | 17.85 | 20.85 | 23.14 | 15.57 | 21.42 |
| N = 24 | S.D. | 2.23 | 4.63 | 4.26 | 3.08 | 2.37 | 4.54 |
| Single Pretest | $\bar{x}$ | 19.54 | 19.50 | 19.25 | 23.00 | 19.75 | 21.00 |
| N = 8 | S.D. | 3.70 | 4.04 | 4.03 | 3.65 | 2.75 | 2.16 |
| Single Posttest | $\bar{x}$ | 25.00 | 15.75 | 18.25 | 26.00 | 15.15 | 18.25 |
| N = 9 | S.D. | 3.83 | 6.34 | 2.87 | 3.37 | 3.77 | 2.63 |

Table 6

Involvement and Satisfaction with the In-Service Course

| Level | Involvement | | Satisfaction | |
|---|---|---|---|---|
| | $\bar{x}$ | S.D. | $\bar{x}$ | S.D. |
| High School N = 28 | 6.42 | 1.21 | 5.73 | 1.09 |
| Middle School N = 24 | 6.08 | 2.09 | 5.92 | 0.91 |
| Elementary N = 19 | 6.00 | 0.68 | 5.21 | 1.53 |

Table 7

Cognitive Test Results[1]

| Level | N | $\bar{x}$ Correct | S.D. |
|---|---|---|---|
| High School | | | |
| Pretest | 14 | 3.571 | 1.742 |
| Posttest | 14 | 4.357 | 1.865 |
| Middle School | | | |
| Pretest | 14 | 3.500 | 1.643 |
| Posttest | 10 | 3.563 | 1.258 |
| Elementary School | | | |
| Pretest | 9 | 3.143 | 1.460 |
| Posttest | 10 | 4.556 | 1.130 |

[1] Eight item test